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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,498	05/04/2005	Jesus Angel de Gregorio Rodriguez	4020-3	1556
23117 7590 08/23/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER ZEWARI, SAYED T	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 08/23/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/510,498	Applicant(s) GREGORIO RODRIGUEZ ET AL.	
	Examiner Sayed T. Zewari	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2617

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7-13, 15-22, 24, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Haverinen et al. (2002/0,012,433).

With respect to claim 1, Haverinen discloses a method in a telecommunication system for allowing a SIM-based authentication to users of a wireless local area network who are subscribers of a public land mobile network (**See Haverinen's abstract, see figure 7 & 8, sections [0242] - [0244], [0247], [0249] - [0251], [0255] - [0258]**), the method comprising the steps of:

(a) a wireless terminal accessing the wireless local area network through an accessible Access Point (**See Haverinen's abstract, see figure 7 & 8, sections [0242] - [0244], [0247], [0249] - [0251], [0255] - [0258]**);

(b) discovering an Access Controller interposed between the Access Point and the public land mobile network from the wireless terminal (**See Haverinen's abstract, see figure 7 & 8, sections [0242] - [0244], [0247], [0249] - [0251], [0255] - [0258];**

(c) carrying out a challenge-response authentication procedure between the wireless terminal and the public land mobile network through the Access Controller (**See Haverinen's abstract, section [0018], [0020], [0021], [0022], [0029], [0034], [0109], [0138], [0170], [0315], see additional information at section [0009] - [0013]), the wireless terminal provided with a SIM card and adapted for reading data thereof (See Haverinen's abstract, see figure 7 & 8, sections [0242] - [0244], [0247], [0249] - [0251], [0255] - [0258]); the method characterized in that the challenge-response authentication submissions in step c) take place before having provided IP connectivity to the user (See Haverinen's abstract, section [0014] - [0029], [0343]), and are carried:**

- on top of a Point-to-Point layer 2 protocol (PPPoE) between the wireless terminal and the Access Controller (**See Haverinen's [0343];** and

- on an authentication protocol residing at application layer between the public land mobile network and the Access Controller (**See Haverinen's [0003], [0263]-[0269];** and the method further comprises a step of:

(d) offering IP connectivity to the user at the wireless terminal, by sending an assigned IP address and other network configuration parameters, once said user has been validly authenticated by the public land mobile network (**See Haverinen's abstract, section [0014] - [0029], [0343]).**

With respect to claim 15, Haverinen discloses an Access Controller in a telecommunication system that comprises a wireless local area network including at least one Access Point, a public land mobile network, and at least one Terminal Equipment provided with a SIM card and adapted for reading subscriber data thereof **(See Haverinen's abstract, see figure 7 & 8, sections [0242] - [0244], [0247], [0249] - [0251], [0255] - [0258])**, the Access Controller characterized in that it comprises:

(a) a Point-to-Point layer 2 protocol (PPPoE) server for communicating with the wireless terminal, and arranged for tunneling the challenge-response authentication procedure **(See Haverinen's abstract, section [0343], [0018], [0020], [0021], [0022], [0029], [0034], [0109], [0138], [0170], [0315], see additional information at section [0009] - [0013])**; and

(b) an authentication protocol residing at an OSI application layer for communicating with the public land mobile network **(See Haverinen's [0003], [0263]-[0269])**.

With respect to claim 25, Haverinen discloses a telecommunication system comprising a wireless local area network that includes at least one Access Point, a public land mobile network, and at least one Terminal Equipment provided with a SIM card and adapted for reading subscriber data thereof, characterized in that it further comprises the Access Controller in claims 15 for allowing SIM-based subscriber authentication to users of the wireless local area network who are subscribers of the public land mobile network **(See Haverinen's abstract, see figure 7 & 8, sections [0242] - [0244], [0247], [0249] - [0251], [0255] - [0258])**.

With respect to claim 2, Haverinen discloses a method wherein the step b) of discovering an Access Controller includes a step of establishing a Point-to-Point Protocol session between a Point-to-Point over Ethernet (PPoE) Protocol client in the wireless terminal and a Point-to-Point over Ethernet (PPoE) Protocol server in the Access Controller (**See Haverinen's abstract, see figure 7 & 8, sections [0242] - [0244], [0247], [0249] - [0251], [0255] - [0258]**).

With respect to claim 3, Haverinen discloses a method wherein the step c) of carrying out the challenge-response authentication procedure (**See Haverinen's abstract, section [0018], [0020], [0021], [0022], [0029], [0034], [0109], [0138], [0170], [0315], see additional information at section [0009] - [0013]**) include the steps of:

(c1) sending a user identifier from the wireless terminal to the public land mobile network through the Access Controller (**See Haverinen's see figure 9, section [0263]-[0279]**);

(c2) receiving an authentication challenge at the wireless terminal from the public land mobile network via the Access Controller (**See Haverinen's see figure 9, section [0263]-[0279]**);

(c3) deriving encryption key and authentication response at the wireless terminal from the received challenge (**See Haverinen's see figure 9, section [0263]-[0279]**);

(c4) sending the authentication response from the wireless terminal to the public land mobile network through the Access Controller (**See Haverinen's see figure 9, section [0263]-[0279]**);

(c5) receiving at the Access Controller an encryption key from the public land

mobile network (**See Haverinen's see figure 9, section [0263]-[0279]**); and  
(c6) extracting the encryption key received for further encryption of  
communication path with the wireless terminal (**See Haverinen's see figure 9, section [0263]-[0279]**).

With respect to claim 4, Haverinen discloses a method further comprising the step of shifting authentication information received on top of a Point-to-Point layer 2 protocol upwards to an authentication protocol residing at application layer for submissions toward the public land mobile network (**See Haverinen's see figure 9, section [0285]-[0305]**).

With respect to claim 5, Haverinen discloses a method further comprising the step of shifting authentication information received on an authentication protocol residing at application layer downwards on top of a Point-to-Point layer 2 protocol for submissions toward the wireless terminal (**See Haverinen's see figure 9, section [0285]-[0305]**).

With respect to claim 7, Haverinen discloses a method wherein the step d) of sending an IP address includes a previous step of requesting such IP address from a Dynamic Host Configuration Protocol server (**See Haverinen's see figure 9, section [0263]-[0279]**).

With respect to claim 8, Haverinen discloses a method wherein the communication between the Access Controller and the public land mobile network goes through an Authentication Gateway of said public land mobile network (**See Haverinen's see figure 9, section [0263]-[0279]**).

With respect to claim 9, Haverinen discloses a method wherein the communication between the Access Controller and the Authentication Gateway of a public land mobile network goes through an Authentication Server of the wireless local area network in charge of authenticating local users of said wireless local area network who are not mobile subscribers **(See Haverinen's see figure 9, section [0263]-[0279])**.

With respect to claim 10, Haverinen discloses a method wherein the user identifier in step c) comprises a Network Access Identifier **(See Haverinen's see figure 16, section [0346], [0371])**.

With respect to claim 11, Haverinen discloses a method wherein the user identifier in step c) comprises an International Mobile Subscriber Identity **(See Haverinen's see figure 9, section [0263]-[0279], see additional information at section [0242], [0244], [0247], [0250], [0255], [0258])**.

With respect to claim 12, Haverinen discloses a method wherein the authentication protocol residing at application layer in step c) is an Extensible Authentication Protocol **(See Haverinen's see figure 16, section [0342]-[0347], [0348]-[0350])**.

With respect to claim 13, Haverinen discloses a method wherein this Extensible Authentication Protocol is transported over a RADIUS protocol **(See Haverinen's see figure 16, section [0342]-[0347], [0348]-[0350] and [0323])**.

With respect to claim 16, Haverinen discloses an Access Controller further comprising:



(a) means for shifting the information received on top of the Point-to-Point layer 2 protocol upwards to the authentication protocol residing at application layer (**See Haverinen's see figure 9, section [0285]-[0305]**); and

(b) means for shifting the information received on the authentication protocol residing at application layer downwards on top of the Point-to-Point layer 2 protocol (PPPoE) (**See Haverinen's see figure 9, section [0285]-[0305]**).

With respect to claim 17, Haverinen discloses an Access Controller further comprising means for requesting an IP address from a Dynamic Host Configuration Protocol server, after a user has been successfully authenticated by his public land mobile network (**See Haverinen's see figure 9, section [0263]-[0279]**).

With respect to claim 18, Haverinen discloses an Access Controller adapted for communicating with a wireless terminal via an Access Point (**See Haverinen's abstract, see figure 7 & 8, sections [0242] - [0244], [0247], [0249] - [0251], [0255] - [0258]**).

With respect to claim 19, Haverinen discloses an Access Controller adapted for communicating with a public land mobile network via an Authentication Gateway (**See Haverinen's see figure 9, section [0263]-[0279]**).

With respect to claim 20, Haverinen discloses an Access Controller adapted for communicating with an Authentication Gateway via an Authentication Server responsible for authenticating local users of a wireless local area network (**See Haverinen's see figure 9, section [0263]-[0279]**).

With respect to claim 21, Haverinen discloses an Access Controller wherein the authentication protocol residing at application layer is an Extensible Authentication Protocol (**See Haverinen's see figure 16, section [0342]-[0347], [0348]-[0350]**).

With respect to claim 22, Haverinen discloses an Access Controller wherein this Extensible Authentication Protocol is transported over a RADIUS protocol (**See Haverinen's see figure 16, section [0342]-[0347], [0348]-[0350] and [0323]**).

With respect to claim 24, Haverinen discloses a wireless terminal comprising functionally for acting as a Point- to-Point layer 2 protocol (PPPoE) client and having an Extensible Authentication Protocol on top of this Point-to-Point layer 2 protocol (**See Haverinen's see figure 9, section [0285]-[0305]**).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haverinen et al. (2002/0,012,433) in view of well-known prior art (MPEP 2144.03).

With respect to claim 6, Haverinen discloses a method of establishing at the wireless terminal an encryption path by using the previously derived encryption keys at

the Access Controller and wireless terminal. Haverinen does not disclose a symmetric encryption. However, an official notice is taken that the concept and use of symmetric encryption are well known and expected in the art. Therefore, it would be obvious to one of ordinary skill in the art to apply the symmetric encryption in the above for authentication purposes.

With respect to claim 14 and 23, Haverinen discloses a method wherein Extensible Authentication Protocol is used. Haverinen does not disclose the EAP is transported over a Diameter protocol. However, an official notice is taken that the concept and use of Diameter protocol are well known and expected in the art. Therefore, it would be obvious to one of ordinary skill in the art to transport EAP over a Diameter protocol.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sayed T. Zewari whose telephone number is 571-272-6851. The examiner can normally be reached on 8:30-4:30.
7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sayed T. Zewari

August 16, 2007



**LESTER G. KINCAID**  
**SUPERVISORY PRIMARY EXAMINER**